26G-ISMS12 **Parallel Fluorescent Probe Synthesis Based on the Large-scale Preparation of BODIPY FL Propionic Acid**

○ Taisuke KATOH[1], Masato YOSHIKAWA[1], Takeshi YAMAMOTO[1], Ryosuke ARAI[1], Noriyuki NII[1], Yoshihide TOMATA[1], Shinkichi SUZUKI[1], Ryoukichi KOYAMA[1], Nobuyuki NEGORO[1], Takatoshi YOGO[1]

[1]Pharmaceutical Research Division, Takeda Pharmaceutical Company, Ltd

We describe a methodology for quick development of fluorescent probes with the desired potency for the target of interest by using a method of parallel synthesis, termed as Parallel Fluorescent Probe Synthesis (Parallel-FPS). BODIPY FL propionic acid **1** is a widely used fluorophore, but is an expensive reagent, which hinders its use in parallel synthesis. Optimization of a synthetic scheme enabled us to obtain 50 g of **1** in one batch. With this large quantity of **1** in hand, we performed Parallel-FPS of BODIPY FL-labeled ligands for estrogen related receptor-α (ERRα). An initial trial of the parallel synthesis with various linkers provided a potent ligand for ERRα (Reporter IC_{50} = 80 nM), demonstrating the usefulness of Parallel-FPS.